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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/016,713	11/02/2001	Selim S. Bencuya	CNXT-01CXT0286I	4444

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EXAMINER
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MALDONADO, JULIO J

ART UNIT	PAPER NUMBER
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2823

DATE MAILED: 03/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	Application No. 10/016,713	Applicant(s) BENCUYA, SELIM S.	
	Examiner Julio J. Maldonado	Art Unit 2823	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 November 2004.  
 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.  
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 4-6,8-10,33 and 34 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
 6) ☒ Claim(s) 4-6,8-10,33 and 34 is/are rejected.  
 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \* c) ☐ None of:  
         1. ☐ Certified copies of the priority documents have been received.  
         2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
         3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
     \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. The cancellation of claims 1-3, 7 and 11, and the addition of claims 33 and 34 as set forth in paper filed on 11/15/2004 is acknowledged.
2. Claims 4-6, 8-10, 33 and 34 are pending in the Application.

#### ***Continued Examination Under 37 CFR 1.114***

3. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/15/2004 has been entered.

#### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claim 4-6 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Tokumitsu (U.S. 5,238,856).

In reference to claim 4, Tokumitsu (Figs.1-13) in a related method to form microlenses on a semiconductor circuit teaches applying a first coat of micro-lens suitable material to the surface of the semiconductive circuit (101, 102, 103, 104); imparting a first lens formation pattern (105) onto the first coat of micro-lens suitable

material; removing unwanted portions of the first coat of micro-lens suitable material; applying a second coat of micro-lens suitable material to the to the surface of the semiconductive circuit (101, 102, 103, 104); imparting a second lens formation pattern (107) onto the second coat of micro-lens suitable material; removing unwanted portions of the second coat of micro-lens suitable material; and forming a plurality of micro-lenses from the remaining portions of the first (106) and second (108) coats of micro-lens suitable material, wherein the micro-lens suitable material is a thermally deformable and further thermally hardenable material such as novolac type positive photoresists (column 3, line 38 – column 5, line 25).

Furthermore, Tokumitsu teaches as a non-preferred embodiment of the invention, modifying the shape of the micro-lens suitable material (rounding off the corner angles, for example) to avoid connecting the lenses with each other (column 5, lines 14 – 20). Although not taught as a preferred embodiment, Tokumitsu teaches this embodiment nonetheless, and disclosed examples and preferred embodiments do not constitute a teaching away from a broader disclosure or nonpreferred embodiments. In *re Susi*, 169 USPQ 423 (CCPA 1971). "A known or obvious composition does not become patentable simply because it has been described as somewhat inferior to some other product for the same use." In *re Gurley*, 31 USPQ2d 1130, 1132 (Fed. Cir. 1994). A reference may be relied upon for all that it would have reasonably suggested to one having ordinary skill the art, including nonpreferred embodiments. *Merck & Co. v. Biocraft Laboratories*, 874 F.2d 804, 10 USPQ2d 1843 (Fed. Cir.), cert. denied, 493 U.S. 975 (1989). Even a teaching away from a claimed invention does not render the

invention patentable. See *Celeritas Technologies Ltd. v. Rockwell International Corp.*, 150 F.3d 1354, 1361, 47 USPQ2d 1516, 1522-23 (Fed. Cir. 1998), where the court held that the prior art anticipated the claims even though it taught away from the claimed invention. "The fact that a modem with a single carrier data signal is shown to be less than optimal does not vitiate the fact that it is disclosed." To further clarify, a prior art opinion that a claimed invention is not preferred for a particular limited purpose, does not preclude utility of the invention for that or another purpose, or even preferability of the invention for another purpose. Therefore, Tokumitsu teaches wherein the first and second lens formation pattern includes a boundary for each of a first and a second plurality of micro-lenses to be formed, and wherein the first and second lens formations pattern further includes a first and a second setback from the boundary for each of the first and second plurality of micro-lenses to be formed.

In reference to claim 5, Tokumitsu teaches wherein the pluralities of lens formation patterns are alternate counterparts of each other (column 5, lines 3 – 13).

In reference to claim 6, Tokumitsu teaches wherein the first and second lens formation patterns comprise rectangular regions in a checkerboard pattern (column 5, lines 3 – 13).

In reference to claim 8, Tokumitsu teaches wherein the step of forming the first and second plurality of micro-lenses comprise the steps of raising the temperature of the micro-lens suitable material in order to relieve the surface tension thereof; allowing the micro-lens suitable material to reflow in order to achieve a desired lens focal length;

and reducing the temperature of the micro-lens suitable material in order to preserve the achieved lens focal length (column 4, lines 6 – 27).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tokumitsu ('856) as applied to claims 4-6 and 8 above, and further in view of Kono et al. (U.S. 5,604,077).

Tokumitsu teaches forming a photoresist layer comprising a novolac positive resist used as a micro-lens suitable material, but fail to expressly teach forming said photoresist by coating the photoresist onto the semiconductive circuit; and performing the patterning by placing a first formation mask comprising the first lens formation pattern proximate to the first coat of micro-lens suitable material, aligning the first formation mask relative to the semiconductive circuit and illuminating the first formation mask with radiation. However, Kono et al. in a related method to treat novolac positive photoresist teach forming said photoresist by coating the photoresist onto a substrate; and performing the patterning by placing a first formation mask comprising the first lens formation pattern proximate to the first coat of micro-lens suitable material, aligning the first formation mask relative to the semiconductive circuit and illuminating the first formation mask with radiation (column 5, line 60 – column 6, line 13). It would have

been within the scope of one of ordinary skill in the art to combine the teachings of Tokumitsu and Kono et al. to enable the formation and patterning steps of Tokumitsu to be performed according to the teachings of Kono et al. because one of ordinary skill in the art at the time the invention was made would have been motivated to look to alternative suitable methods of performing the disclosed formation and patterning steps of Tokumitsu and art recognized suitability for an intended purpose has been recognized to be motivation to combine. MPEP 2144.07.

8. Claims 33 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tokumitsu ('856) as applied to claims 4-6 and 8 above, and further in view of the following comments.

Tokumitsu teaches as a non-preferred embodiment of the invention, modifying the shape of the micro-lens suitable material (rounding off the corner angles, for example) to avoid connecting the lenses with each other (column 5, lines 14 – 20). Tokumitsu fails to expressly teach wherein the first and second setback from the boundary is less than a setback for a single pass micro-lens formation method. The selection of the claimed setback is obvious because it is a matter of determining optimum process condition by routine experimentation with a limited number of species to obtain a desired receding setback. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the above-mentioned ranges to arrive at the claimed invention.

***Response to Arguments***

9. Applicant's arguments filed 11/15/2004 have been fully considered but they are not persuasive.

In response to applicants' arguments regarding Tokumitsu teaching away from forming setbacks and as mentioned above, although not taught as a preferred embodiment, Tokumitsu teaches this embodiment nonetheless, and disclosed examples and preferred embodiments do not constitute a teaching away from a broader disclosure or nonpreferred embodiments. In re Susi, 169 USPQ 423 (CCPA 1971). "A known or obvious composition does not become patentable simply because it has been described as somewhat inferior to some other product for the same use." In re Gurley, 31 USPQ2d 1130, 1132 (Fed. Cir. 1994). A reference may be relied upon for all that it would have reasonably suggested to one having ordinary skill the art, including nonpreferred embodiments. Merck & Co. v. Biocraft Laboratories, 874 F.2d 804, 10 USPQ2d 1843 (Fed. Cir.), cert. denied, 493 U.S. 975 (1989). Even a teaching away from a claimed invention does not render the invention patentable. See Celeritas Technologies Ltd. v. Rockwell International Corp., 150 F.3d 1354, 1361, 47 USPQ2d 1516, 1522-23 (Fed. Cir. 1998), where the court held that the prior art anticipated the claims even though it taught away from the claimed invention. "The fact that a modem with a single carrier data signal is shown to be less than optimal does not vitiate the fact that it is disclosed." To further clarify, a prior art opinion that a claimed invention is not preferred for a particular limited purpose, does not preclude utility of the invention for that or another purpose, or even preferability of the invention for another purpose.



**Conclusion**


10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner Julio J. Maldonado whose telephone number is (571) 272-1864. The examiner can normally be reached on Monday through Friday.

11. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Olik Chaudhuri, can be reached on (571) 272-1855. The fax number for this group is 703-872-9306 for before final submissions, 703-872-9306 for after final submissions and the customer service number for group 2800 is (703) 306-3329.

Updates can be found at <http://www.uspto.gov/web/info/2800.htm>.

Julio J. Maldonado  
Patent Examiner  
Art Unit 2823

Julio J. Maldonado  
March 14, 2005

  
George Fourson  
Primary Examiner